United States Environmental Protection Agency
Region 7
300 Minnesota Avenue
Kansas City, KS 66101

Date: 04/24/2019

Subject: Transmittal of Sample Analysis Results for ASR #: 8209

Project ID: TJAAEEP4S

Project Description: Alt-En Ethanol Plant - NDEQ ASR

From: Margaret E.W. St. Germain, Chief
Laboratory Technology & Analysis Branch
Laboratory Services and Applied Sciences Division

MARGARET ST. GERMAIN
Digitally signed by MARGARET ST. GERMAIN
Date: 2019.04.24 17:00:48 -05'00'

To: Tabatha Adkins
ENST/LTAB

Enclosed are the analytical data for the above-referenced Analytical Services Request (ASR) and Project. These results are based on samples as received at the Science and Technology Center. The Regional Laboratory has reviewed and verified the results in accordance with procedures described in our Quality Manual (QM). In addition to all of the analytical results, this transmittal contains pertinent information that may have influenced the reported results and documents any deviations from the established requirements of the QM.

Please ensure that you file this electronic (.pdf only) transmittal in your records management system. The Regional Laboratory will now retain all of the original hardcopy documentation (e.g. COC[s] and the R7LIMS field sheet[s], etc.) according to our ENST records management system.

Please contact us within 14 days of receipt of this package if you determine there is a need for any changes. Please complete the Online ASR Sample/Data Disposition and Customer Survey for this ASR as soon as possible. The process of disposing of the samples for this ASR will be initiated 30 days from the date of this transmittal unless an alternate release date is specified on the Online ASR Sample/Data Disposition and Customer Survey. It is critical that we receive your response in accordance to RCRA and the laboratory accreditation.

If you have any questions or concerns relating to this data package, contact our customer service line at 913-551-5295.

Project Manager: Tabatha Adkins **Org:** ENST/LTAB **Phone:** 913-551-7128

Project ID: TJAAEEP4S **QAPP Number:** NDEQ

Project Desc: Alt-En Ethanol Plant - NDEQ ASR

Location: Mead **State:** Nebraska **Program:** Water Enforcement

Purpose: Site Characterization **GPRA PRC:** 000E50

This screening/characterization event is in response to recent complaints of odor and other concerns.

Additional field contact is: Wade Gregson, NDEQ (402-601-1011).

Per NDEQ submitted ASR on 4/4/2019: This ASR is not part of a litigation hold at this time.

Explanation of Codes, Units and Qualifiers used on this report

Sample QC Codes: QC Codes identify the type of sample for quality control purpose.

___ = Field Sample

Units: Specific units in which results are reported.

mg/L = Milligrams per Liter
% = Percent
ug/L = Micrograms per Liter
mg/kg = Milligrams per Kilogram

Data Qualifiers: Specific codes used in conjunction with data values to provide additional information on the quality of reported results, or used to explain the absence of a specific value.

(Blank)= Values have been reviewed and found acceptable for use.
J = The identification of the analyte is acceptable; the reported value is an estimate.
UJ = The analyte was not detected at or above the reporting limit. The reporting limit is an estimate.
U = The analyte was not detected at or above the reporting limit.

ASR Number: 8209 **Sample Information Summary** **04/24/2019**

Project ID: TJAAEEP4S **Project Desc:** Alt-En Ethanol Plant - NDEQ ASR

Sample No	QC Code	Matrix	Location Description	External Sample No	Start Date	Start Time	End Date	End Time	Receipt Date
1 - ___		Solid	Wet cake sample		04/08/2019	11:00			04/09/2019
2 - ___		Water	West Lagoon water sample		04/08/2019	12:35			04/09/2019
3 - ___		Water	Overflow Lagoon water sample		04/08/2019	13:30			04/09/2019
4 - ___		Solid	Seed corn sample		04/08/2019	13:30			04/09/2019

Analysis	Comments About Results For This Analysis

1 Mercury in Soil or Sediment

Lab: Region 7 EPA Laboratory - Kansas City, Ks.

Method: EPA Region 7 RLAB Method 3121.23E

Basis: Dry

Samples: 1-__ 4-__

Comments:
(N/A)

1 Metals in Solids by ICP-AES

Lab: Region 7 EPA Laboratory - Kansas City, Ks.

Method: EPA Region 7 RLAB Method 3122.3G

Basis: Dry

Samples: 1-__ 4-__

Comments:
Barium was J-coded in sample 1. Although the analyte in question has been positively identified in the sample, the quantitation is an estimate (J-coded) due to low recovery of this analyte in the laboratory matrix spike. The actual concentration for this analyte may be higher than the reported value.

1 Percent Solid

Lab: Region 7 EPA Laboratory - Kansas City, Ks.

Method: EPA Region 7 RLAB Method 3142.9H

Basis: N/A

Samples: 1-__ 4-__

Comments:
(N/A)

1 TCLP Mercury in Soil

Lab: Region 7 EPA Laboratory - Kansas City, Ks.

Method: EPA Region 7 RLAB Method 3121.23E applied to TCLP extracts

Basis: N/A

Samples: 1-__ 4-__

Comments:

1 TCLP Metals in Soil

Lab: Region 7 EPA Laboratory - Kansas City, Ks.

Method: EPA Region 7 RLAB Method 3122.3G TCLP

Analysis **Comments About Results For This Analysis**

Basis: N/A

Samples: 1-__ 4-__

Comments:

1 Mercury in Water

Lab: Region 7 EPA Laboratory - Kansas City, Ks.

Method: EPA Region 7 RLAB Method 3121.23E

Samples: 2-__ 3-__

Comments:
(N/A)

1 Metals in Water by ICP-AES

Lab: Region 7 EPA Laboratory - Kansas City, Ks.

Method: EPA Region 7 RLAB Method 3122.3G

Samples: 2-__ 3-__

Comments:
Aluminum was J-coded in sample 2. Although the analyte in question has been positively identified in the sample, the quantitation is an estimate (J-coded) due to high recovery of this analyte in the laboratory matrix spike. The actual concentration for this analyte may be lower than the reported value.

Nickel was J-coded in sample 2. Although the analyte in question has been positively identified in the sample, the quantitation is an estimate (J-coded) due to low recovery of this analyte in the laboratory matrix spike. The actual concentration for this analyte may be higher than the reported value.

Antimony, Cadmium, Lead, Molybdenum, Selenium, Silver, Thallium, Titanium was each UJ-coded in sample 2. This analyte was not found in the sample at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to low recovery of this analyte in the laboratory matrix spike. The actual reporting limit for this analyte may be higher than the reported value.

1 TCLP Mercury in Water

Lab: Region 7 EPA Laboratory - Kansas City, Ks.

Method: EPA Region 7 RLAB Method 3121.23E applied to TCLP extracts

Samples: 2-__ 3-__

Comments:

1 TCLP Metals in Water

Lab: Region 7 EPA Laboratory - Kansas City, Ks.

Analysis	Comments About Results For This Analysis

Method: EPA Region 7 RLAB Method 3122.3G TCLP

Samples: 2-__ 3-__

Comments:

Lead was UJ-coded in sample 2. This analyte was not found in the sample at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to low recovery of this analyte in the laboratory matrix spike. The actual reporting limit for this analyte may be higher than the reported value.

Analysis/ Analyte	Units	1-___	2-___	3-___	4-___
1 Mercury in Soil or Sediment					
Mercury	mg/kg	0.0112			0.00179
1 Metals in Solids by ICP-AES					
Aluminum	mg/kg	2420			7.5
Antimony	mg/kg	1.9 U			2.0 U
Arsenic	mg/kg	4.8 U			5.0 U
Barium	mg/kg	42.3 J			2.0 U
Beryllium	mg/kg	1.0 U			1.0 U
Cadmium	mg/kg	1.0 U			1.0 U
Calcium	mg/kg	2640			49.6 U
Chromium	mg/kg	3.4			2.0 U
Cobalt	mg/kg	1.7			1.0 U
Copper	mg/kg	13.6			2.4
Iron	mg/kg	3270			19.3
Lead	mg/kg	4.8 U			5.0 U
Magnesium	mg/kg	1610			991
Manganese	mg/kg	124			5.0 U
Molybdenum	mg/kg	1.9 U			2.0 U
Nickel	mg/kg	4.2			2.0 U
Potassium	mg/kg	3960			3730
Selenium	mg/kg	9.7 U			9.9 U
Silver	mg/kg	1.9 U			2.0 U
Sodium	mg/kg	694			49.6 U
Thallium	mg/kg	9.7 U			9.9 U
Vanadium	mg/kg	5.9			5.0 U
Zinc	mg/kg	262			18.4
1 Percent Solid					
Solids, percent	%	39.2			89.8
1 TCLP Mercury in Soil					
Mercury	mg/L	0.000440			0.000350
1 TCLP Metals in Soil					
Arsenic	mg/L	0.050 U			0.050 U
Barium	mg/L	0.674			0.016 U
Cadmium	mg/L	0.010			0.005 U
Chromium	mg/L	0.078			0.015 U
Lead	mg/L	0.050 U			0.050 U
Selenium	mg/L	0.066			0.050 U
Silver	mg/L	0.025 U			0.025 U
1 Mercury in Water					
Mercury	ug/L		0.250 U	0.250 U	
1 Metals in Water by ICP-AES					
Aluminum	ug/L		1580 J	60200	
Antimony	ug/L		50 UJ	50 U	
Arsenic	ug/L		25 U	25 U	
Barium	ug/L		164	727	
Beryllium	ug/L		3 U	3 U	

Analysis/ Analyte	Units	1-___	2-___	3-___	4-___
Cadmium	ug/L		3 UJ	3 U	
Calcium	mg/L		97.6	616	
Chromium	ug/L		37	96	
Cobalt	ug/L		10 U	18	
Copper	ug/L		77	1660	
Iron	ug/L		6640	67700	
Lead	ug/L		50 UJ	97.2	
Magnesium	mg/L		246	150	
Manganese	ug/L		1130	2080	
Molybdenum	ug/L		15 UJ	24	
Nickel	ug/L		39 J	130	
Potassium	mg/L		848	320	
Selenium	ug/L		50 UJ	111	
Silver	ug/L		25 UJ	25 U	
Sodium	mg/L		414	256	
Thallium	ug/L		50 UJ	50 U	
Titanium	ug/L		20 UJ	105	
Vanadium	ug/L		10 U	127	
Zinc	ug/L		3060	14900	
1 TCLP Mercury in Water					
Mercury	mg/L		0.000250 U	0.000530	
1 TCLP Metals in Water					
Arsenic	mg/L		0.050 U	0.050 U	
Barium	mg/L		0.122	0.070	
Cadmium	mg/L		0.005 U	0.005 U	
Chromium	mg/L		0.091	0.087	
Lead	mg/L		0.050 UJ	0.050 U	
Selenium	mg/L		0.050 U	0.050 U	
Silver	mg/L		0.025 U	0.025 U	

~4/9/19

Tabatha Adkins (EPA PM - Region 7)

CHAIN OF CUSTODY RECORD

ENVIRONMENTAL PROTECTION AGENCY REGION VII

EPA PROJECT MANAGER (Print)	SITE OR SAMPLING EVENT	DATE OF SAMPLE COLLECTION(S)	SHEET
~~Daniel LeMaistre~~	Alt-En Ethanol Plant	4 (MONTH) 8 (DAY) 2019 (YEAR)	1 of 1

CONTENTS OF SHIPMENT

ASR AND SAMPLE NUMBER	1 L PLASTIC BOTTLE	1L Glass BOTTLE	BOTTLE	BOTTLE	VOA SET (3 VIALS EA)	WATER	SOLID	HAZ WASTE	AIR	OTHER	RECEIVING LABORATORY REMARKS OTHER INFORMATION (condition of samples upon receipt, other sample numbers, etc.)
8290-1 (corrected to 8209)		2					X				
8290-2 (corrected to 8209)	1	1				X					
8290-3 (corrected to 8209)	1	1				X					RSCC corrected R7 LIMS
8209-4		2					X				ASR # to show 8209 not 8290 on COC + tags @ SR ~4/9/19
											Av. Temp. Rec'd bet. 4.9-6.2 °C ~4/9/19

TYPE OF CONTAINERS — NUMBER(S) OF CONTAINERS PER SAMPLE NUMBER; SAMPLED MEDIA

ASR # 8209 - Complete ~4/9/19

DESCRIPTION OF SHIPMENT	MODE OF SHIPMENT
8 CONTAINER(S) CONSISTING OF ____ CRATE(S)	____ COMMERCIAL CARRIER UPS
1 ICE CHEST(S): OTHER ____	____ SAMPLER CONVEYED ____ (SHIPPING AIRBILL NUMBER)

PERSONNEL CUSTODY RECORD

RELINQUISHED BY (PM/SAMPLER)	DATE	TIME	RECEIVED BY	DATE	TIME	REASON FOR CHANGE OF CUSTODY
Wade Orega [signature] — SEALED ✓ / UNSEALED	4/8/19	1530	Keith Dix [signature] — SEALED / UNSEALED X	4/8/19	1530	To ship samples
Keith Dix [signature] — X SEALED / UNSEALED	4/8/19	1720	Nicole Roberts [signature] — SEALED / UNSEALED	4/9/19	1100A	Analysis
SEALED / UNSEALED			SEALED / UNSEALED			
SEALED / UNSEALED			SEALED / UNSEALED			

7-EPA-9262 (REV 4/17) WHITE ORIGINAL - EPA LAB • YELLOW - EPA PROJECT MANAGER

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 8209 **Sample Number:** 1 **QC Code:** ___ **Matrix:** Solid **Tag ID:** 8209-1-___

Project ID: TJAAEEP4S **Project Manager:** Tabatha Adkins
Project Desc: Alt-En Ethanol Plant - NDEQ ASR
City: Mead **State:** Nebraska
Program: Water Enforcement

Location Desc: Wet cake sample

Storet ID: _____ **External Sample Number:** _____

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 04/08/2019 11:00
Longitude: ___ ___ ___ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time		Analysis
1 - 8 oz glass	4 Deg C	28	Days	1 Mercury in Soil or Sediment
1 - 8 oz glass	4 Deg C	180	Days	1 Metals in Solids by ICP-AES
1 - 8 oz glass	4 Deg C	180	Days	1 TCLP Metals in Soil
1 - 8 oz glass	None	28	Days	1 TCLP Mercury in Soil
0 -	4 Deg C	0	Days	1 Percent Solid

Sample Comments:

(N/A)

Sample Collected By: NDEQ

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 8209 **Sample Number:** 2 **QC Code:** __ **Matrix:** Water **Tag ID:** 8209-2-__

Project ID: TJAAEEP4S **Project Manager:** Tabatha Adkins
Project Desc: Alt-En Ethanol Plant - NDEQ ASR
City: Mead **State:** Nebraska
Program: Water Enforcement

Location Desc: West Lagoon water sample

Storet ID: _____ **External Sample Number:** _____

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ____ ____ ____ **Sample Collection: Start:** 04/08/2019 12:35
Longitude: ____ ____ ____ **End:** __/__/__ __:__

Laboratory Analyses:

Container	Preservative	Holding Time		Analysis
1 - 1 Liter plastic bottle	5 mL of HNO3/L to pH<2	28	Days	1 Mercury in Water
1 - 1 Liter plastic bottle	HNO3 acidify, 4 Deg C	180	Days	1 Metals in Water by ICP-AES
1 - 1 Liter plastic bottle	None	28	Days	1 TCLP Mercury in Water
1 - 8 oz glass	4 Deg C	180	Days	1 TCLP Metals in Water

Sample Comments:

(N/A)

Sample Collected By: NDEQ

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 8209 **Sample Number:** 3 **QC Code:** ___ **Matrix:** Water **Tag ID:** 8209-3-___

Project ID: TJAAEEP4S **Project Manager:** Tabatha Adkins
Project Desc: Alt-En Ethanol Plant - NDEQ ASR
City: Mead **State:** Nebraska
Program: Water Enforcement

Location Desc: Overflow Lagoon water sample

Storet ID: _____ **External Sample Number:** _____

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ____ ____ ____ **Sample Collection: Start:** 04/08/2019 13:30
Longitude: ____ ____ ____ **End:** ___/___/___ ___:___

Laboratory Analyses:

Container	Preservative	Holding Time		Analysis
1 - 1 Liter plastic bottle	5 mL of HNO3/L to pH<2	28	Days	1 Mercury in Water
1 - 1 Liter plastic bottle	HNO3 acidify, 4 Deg C	180	Days	1 Metals in Water by ICP-AES
1 - 1 Liter plastic bottle	None	28	Days	1 TCLP Mercury in Water
1 - 8 oz glass	4 Deg C	180	Days	1 TCLP Metals in Water

Sample Comments:

(N/A)

Sample Collected By: NDEQ

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 8209 **Sample Number:** 4 **QC Code:** ___ **Matrix:** Solid **Tag ID:** 8209-4-___

Project ID: TJAAEEP4S **Project Manager:** Tabatha Adkins
Project Desc: Alt-En Ethanol Plant - NDEQ ASR
City: Mead **State:** Nebraska
Program: Water Enforcement

Location Desc: Seed corn sample

Storet ID: _____ **External Sample Number:** _____

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 04/08/2019 13:30
Longitude: ___ ___ ___ **End:** __/__/___ __:__

Laboratory Analyses:

Container	Preservative	Holding Time		Analysis
1 - 8 oz glass	4 Deg C	28	Days	1 Mercury in Soil or Sediment
1 - 8 oz glass	4 Deg C	180	Days	1 Metals in Solids by ICP-AES
1 - 8 oz glass	4 Deg C	180	Days	1 TCLP Metals in Soil
1 - 8 oz glass	None	28	Days	1 TCLP Mercury in Soil
0 -	4 Deg C	0	Days	1 Percent Solid

Sample Comments:

(N/A)

Sample Collected By: NDEQ